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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/684,768      | 10/14/2003  | Sachin Navin Chheda  | 200308767-1         | 3359             |

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EXAMINER

PATEL, ANAND B

ART UNIT PAPER NUMBER

2116

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                               |  |
|------------------------------|-------------------------------|-------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/684,768 | Applicant(s)<br>CHHEDA ET AL. |  |
|                              | Examiner<br>Anand Patel       | Art Unit<br>2116              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 and 20 is/are allowed.
- 6) ☒ Claim(s) 1,2,9,10,12 and 13 is/are rejected.
- 7) ☒ Claim(s) 3-8,11 and 14-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 6226699 to Humpherys et al (Humpherys), in view of US Patent No 6789206 to Wierzbicki et al (Wierzbicki).

- As per claims 1, 13, Humpherys discloses a server (10) comprising:
  - An electronic switching mechanism (150, 155) disposed on the card (figures 2, 3) and configured to cause three power states of the card including:
    - A fully-operational state in which a system power of the card is enabled (150 chooses 120) and a standby power of the card is enabled (155 chooses 130);
    - A standby state in which the system power of the card is disabled (150 chooses 130) and the standby power of the card is enabled (155 chooses 130); and
    - A shutdown state in which the system power of the card is disabled (system off) and the standby power of the card is disabled (system off).

Humpherys fails to disclose a server card. Wierzbicki teaches a server card (11) that is removable insertable into a server chassis (13). An advantage of the system taught by Wierzbicki is the ability to produce a computing element that is cheaper and user-friendlier than the prior art. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Humpherys with Wierzbicki. Motivation to modify is to cut costs and increase user control and understandability.

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- As per claim 2, Humpherys discloses a server management circuitry (160) configured for communication with the electronic switching mechanism for managing the power states of the server card (figure 3; column 4, lines 36-38). Wierzbicki teaches wherein the server card (110) comprises at least one of a blade server and a brick server (figure 2).
- As per claim 12, Wierzbicki teaches wherein the server card (11) comprises an electronic user interface (53) configured for communication with the switching mechanism to cause switching between power states of the server card (column 7, lines 18-21; figure 9 lists power states).

3. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humpherys, in view of Wierzbicki and US Patent Application Publication No 2004/0403345 to Dunstan.

- As per claim 9, Humpherys fails to disclose a server card, a watchdog timer, and a means for operating system shutdown. Wierzbicki teaches a server card (11). An advantage of the system taught by Wierzbicki is the ability to produce a computing element that is cheaper and user-friendlier than the prior art. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Humpherys with Wierzbicki. Motivation to modify is to cut costs and increase user control and understandability.

Wierzbicki fails to disclose a watchdog timer, and a means for operating system shutdown. Dunstan teaches:

- An operating system (306) stored in a memory (308); and
- A watchdog timer (303) in communication with the operating system (figure 3) and configured to be activated upon a transition from the fully operational state to the standby state (200-202; paragraph 8) and configured to cause the operating system to shut down, prior to the system power being disabled, in event that operating system does not shutdown within a predetermined period of time (figure 2; paragraphs 23, 25).

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An advantage of the system taught by Dunstan is the ability to ensure proper shutdown of a computer (paragraph 8). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Humpherys and Wierzbicki with Dunstan. Motivation to modify is to increase system reliability.

- As per claim 10, Dunstan teaches a management circuitry (302) in communication with the watchdog timer (figure 3) and configured to monitor progress of the shutdown of the operating system (figure 2).

*Allowable Subject Matter*

4. Claims 19-20 are allowed. Humpherys discloses a power state manager for a server card comprising means for electronically disabling and enabling a system power and a standby power of a card to manage three power states of the card. Wierzbicki teaches a server card that is physically secured into a chassis. Prior art fails to disclose or suggest physically securing the server card relative to the chassis when the system power and standby power are enabled and when the standby power is enabled.

5. Claims 3-8, 11, 14-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Prior art fails to disclose or suggest physically securing the server card relative to the chassis when the system power and standby power are enabled and when the standby power is enabled. Prior art further fails to disclose or suggest wherein operating the electronic switching mechanism to activate a standby state comprises requesting, via a power management module, disabling the system power of the at least one server card in response to a power event of the switching mechanism transitioning from the fully shutdown state to the standby state, thereby triggering a shutdown of an operating system of the at least one server card.

*Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- US Patent No 6967283 to Rasmussen et al teaches power control in a server system.
  - US Patent No 6262493 to Garnett teaches power control to a plurality of field replaceable units.
  - US Patent No 6928504 to Peacock teaches shutting down power to a card when the card is unlatched.
  - US Patent No 6678162 to Chewing teaches a latch for controlling power to a computing device in a computer system.
  - US Patent No 6822348 to Yen et al teaches a switch structure that causes power to be supplied or cut from a server card.
  - US Patent No 5572141 to Hutton teaches a lock that prevents removal of a card while power is being supplied to the card.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Patel whose telephone number is (571) 272-7211. The examiner can normally be reached on Mon-Fri 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ABP

  
**LYNNE H. BROWNE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**